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Science — Biology

Science — Year 1 Levels:

L — 1st through 4th

M — 5th through 8th

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Course Description: Students will explore two branches of biology: human anatomy and plant life. Students will learn about the body systems and conduct experiments to further their understanding. A study of plants will include their structure, reproduction, and types. Soil, biomes and underwater plants are some of the special topics covered. Students will use textbooks, videos and online learning materials. Experiments and nature observations will enhance their learning and understanding. Students will have the opportunity to present their experimental findings to an audience.

Reading List: (selections of the following titles)

L The First Book of Plants, Dickinson; Elementary Life Science, Mr. Q

M Real Things in Nature, Holden; Life Science for Middle School, Wilkin

Materials:

- [Basic Supplies](#)
- [Science, Year 1, Level L](#)
- [Science, Year 1, Level M](#)

Day 1

I want to teach you something about science. Science is a collection of observations about the world. When something has been observed enough, it becomes scientific law. That means that scientists say that what they have observed will always be true. It is stated as fact. But even these “laws” have been broken at times when all of a sudden, something different is observed. It was believed that the atom was the smallest thing in the universe. It was called fact. Then someone figured out how to split an atom. The point is that science only really tells us what has been observed. It doesn't prove truth. It just states what is observed and measured in the world around us. Why am I making sure you understand this? Because who was there to observe the creation of the universe? God alone. Science can't prove anything about the creation of the world because it can make no observations about it. It takes what it observes in the world today and makes hypotheses, guesses, about the creation of the world. Until pretty recently most Western scientists were Christians. Never let anyone make you feel stupid for believing God created the world. Many scientists that you read about in history believed in a Creator, some of the smartest people that have lived. The Bible contains all truth. You never have to be afraid to believe the truth in the Bible. There may seem to be things that couldn't possibly be true. Say,

we measure stars at being billions of light years away. That means, in order for us to see its light, that light would have had to be traveling for billions of years to reach us. Well, a Christian mathematician and scientist has shown how it could appear that way and still only be less than ten thousand years away. No one has yet been able to dispute the math he used to show it. Here's an [article](#) about it that your parents might be interested in. One method science uses to try and observe something's age is carbon dating. There are some that say carbon dating shows that there are bones that are millions of years old. Here are [two articles](#) that talk about how [carbon dating](#) isn't accurate. These are articles for adults. You don't have to read them. The first is much easier to read than the second, but if you or your parents are interested, please go ahead and read them. I just want to show you that there are scientists that believe the earth is young. I personally know a scientist, a physicist with a PhD, who has studied the topic and believes the earth to be less than 10,000 years old. It's not silly to believe it. It is silly to let someone change your mind with "facts" that aren't proven true. Remember this: Scientists don't agree on things! Anytime you hear someone say, "All scientists say that..." It isn't true. It's propaganda to try and get you to believe something. Don't be afraid to believe the Bible. It will always prove to be true in the end. God is Truth and cannot lie! You can trust His Word.

1. Explain to someone what science is and why it can't tell us what happened at the beginning of time.

Day 2

L*

1. Read [chapter 1](#). (Scroll past the Title page and Table of Contents to the start of the chapter.)
2. *Print out page 6 (page 11 of the pdf) and answer the questions.
3. Then you can check your answers [here](#) on page 28 of chapter 1. This is page 34 of the pdf. (Don't close after you've checked your answers.)
4. Read the activity on [page 30](#). This is page 36 of the pdf. (This is the same pdf as the answers.) Make a living and non-living bag and ask others in your family to feel and guess. You tell them whether they are right or not.

M

1. Read the first chapter on [Characteristics of Living Organisms](#). Before you can use this site, you will need to register. Ask a parent to help you create a username and password. This is a site where you can use your junk email and password. Make sure you tell the site to remember you.
2. Our book does not teach that God created the world in six days. It will speak of millions of years. You aren't expected to take that as fact. You won't be learning about this, but it mentions evolution, the hypothesis that all living things came from a single cell organism that mutated and changed and developed into something else. That's why people call primates our ancestors. They say they changed little by little until they became human. My personal opinion is that it is senseless. I call it a hypothesis because it has never been observed happening and therefore cannot be called scientific theory, let alone fact. (If you are interested, here's a [Ray Comfort video on Evolution](#).)
3. You may click on the link to watch the [vimeo video on the introduction to life](#). You can also watch this [cell video](#).
4. Answer the review questions 1-5. That's where you stop reading.
5. STUDY TIP: Go to the end and read the questions first. That way you can be looking for

the answers while you read. It will make it easier for you if you will just take an extra minute to look at the questions before the reading.

6. Check your [answers](#) when you are done.

Human Body, first up is skin

Day 3

L

1. We will learn about cells later, but you should know that cells are your body's building blocks. Everything in your body is made up of cells.
2. Read about [skin](#) on pages 3-5 (just the top part until the picture). On the pdf they are pages 244-246.
3. Why do you sweat when you are hot?
4. Look at your skin with a magnifying glass. Make observations. (If you have a microscope, you can rub some skin off of you and look at it with your microscope.) Here's an image of skin under a [microscope](#).

M

1. We'll learn about cells later, but you should remember that everything in your body is made up of cells. Each cell is about 70% water so what atoms do you know are present in your cells? (answer: hydrogen and oxygen –H₂O)
2. Read about [skin](#). Before you can use this site, you will need to register. Ask a parent to help you create a username and password. This is a site where you can use your junk email and password. Make sure you tell the site to remember you.
3. Answer review questions 1-7.
4. Check your [answers](#).
5. Watch this [skin lesson](#).
6. What makes skin an organ?
7. Look at these [images](#) of [skin](#) and make [observations](#).

Day 4 (Materials for L: white paper, tape, or butcher paper)

L

1. Get big paper, or tape together white paper. Put all the tape on the back. You need one piece of paper big enough for you to lie down on.
2. Have someone trace your body onto the paper.

M*

1. *Print this [skin diagram](#).
2. Label the skin. Here's an [image](#) to help.

Day 5

L

1. Read [page 5-8](#). This section is on muscles. Start where you left off and read up to the beginning of the bone section.
2. Do this [jigsaw puzzle](#), only if you want to.

M

1. Read the section on [The Muscular System](#).
2. Answer review questions 1-6.
3. Check your [answers](#).

Day 6

L

1. Watch this [muscle video](#).
2. Add [biceps and quadriceps](#) in your body drawing. Just color them in on one side and label them.
3. Now bend and stretch your arms and legs. Do you feel your biceps and quadriceps moving? Picture what they are doing. Describe to someone what they are doing.

M

1. Play [poke a muscle](#). (Use AdBlock Plus or have a parent load the page. Refresh if the ads aren't good.) Click on scan. Read the names of the muscles. Click on begin. Use the scanner to find the muscle named; it will be a different color. Click on it. Repeat until you can click on all of the muscles.
2. Do the [jigsaw puzzle](#) if you want to. (Have a parent load the page and decide about the ads.)

Skeletal System

Day 7

L

1. Read the section on bones, [pages 8-10](#). In the document it's the very end of 249 -251.
2. Draw the [tibia and fibula](#) on your body picture. Use the same side as where you drew the muscles.
3. Draw the [radius and ulna](#) on your body picture. Use the same side as where you drew the muscles.
4. Do you know what your funny bone is? Can you figure out why they call it that? Look at the arm drawing again.

M

1. Read about the [Skeletal System](#).
2. Answer the review questions
3. Check your [answers](#).

Day 8

L

1. Watch this movie about the [skeletal system](#).
2. Take the [quiz](#).
3. Take a look at this [skeleton](#).
4. Put together a [skeleton](#). Choose "assemble."

M

1. Take the tour of the [skeletal system](#). Click in the bottom right corner to move on. The page with the link for the axial skeleton doesn't open correctly. Use [this alternate link](#).

2. Then you can [label the skeleton](#).

Day 9 (Materials for L: 6 pieces of paper, tape, paper plate or lightweight plastic plate, wooden blocks or something to add as weight)

L

1. Read about [bone marrow](#). Tell someone what bone marrow is.
2. Watch this [video on joints](#). Then take the quiz.
3. Do the “[Hollow Strength](#)” activity. It’s number 2.
4. Look [inside a bone](#) (scroll down to the slideshow). Bones, the hard white stuff you see in x-rays are hollow, but there is stuff inside the hollow part. The inside is soft like a sponge.

M*

1. Watch this video on [bone structure](#). Then take the quiz.
2. Look at this [skeleton](#).
3. *Print and label this [skeleton](#).

Day 10

L*

1. Print the [last two pages](#). Complete the matching and the multiple choice.
2. After you are finished, check your answers on [page 4](#). (answers: The page three, multiple choice section, has a mistake in the answers. #2 should be B, inside your body.)

M

1. [Concentration](#)
2. Take the [test](#)!
3. One more [test](#)!
4. Perform [knee surgery](#) if you like. Login with easypeasy and allin1homeschool . This login is only for Easy Peasy students doing their assignments.

Digestive System

Day 11

L

1. Today you are going to start reading about your Digestive System.
2. Read from the beginning of [this chapter](#) through the paragraph after “Why Doesn’t It Do That?” Don’t read yet about the intestines.
3. Read [some more](#) about it. Read pages 1 and 2.
4. Add an esophagus and stomach to your wall body. See [what they look like](#) and where they go.

M

1. Read the [Food and Nutrients](#) chapter.
2. Stop at the review questions and answer them.
3. Check your [answers](#).

Day 12

L

1. Read the rest of [the chapter](#).
2. Take a look again [inside](#). Here are the [kidneys](#). Here's another [picture](#).
3. Add intestines and kidneys to your wall body.

M

1. Read the [Digestive System](#) chapter.
2. Answer the review questions.
3. Check your [answers](#).

Day 13

L

1. Do the [matching page](#) (second to last). You can print it or just write the numbers and letters down in your notebook.
2. When you are done, you can [check your answers](#).
3. Watch a movie on the [digestive system](#).

M*

1. *Label the [digestive system](#).
2. Can you fill out the [crossword puzzle](#)?

Day 14 (paper towel, bowl of water)

L

1. [Read](#) up until the liver.
2. Do the [Day Three activity](#).
3. Record the experiment on an [experiment worksheet](#).

M

1. Take a [nutrition quiz](#).
2. Take a [digestion quiz](#).
3. Report your scores to your parents.

Day 15

L*

1. Read the rest of the [chapter](#). Stop at the fill in the blanks page.
2. *Print out the [last page](#) and fill in the blanks in the story.
3. Do the [Day Two](#) activity. Read the explanation. You are learning about bile chasing down and surrounding fat!
4. You can see a [video](#) of a very similar experiment here (in case you don't have food coloring). The only difference is that the paper says to spread out the drops and he puts them close together.

M

1. Take a [test](#).
2. One [more!](#) Question number 2 should read "the organ labeled A," not C.
3. Report your scores to your parents.

Day 16

L*

1. Add a mouth and tongue to your wall body.
2. *Print out and complete this [word find](#).

M

1. Write the story of a doughnut being eaten and digested. You can write it as the doughnut speaking. OR, draw a diagram of its route and add labels telling what happens at each point.

Day 17 (Materials for L: 4 glasses or jars or test tubes, 4 pieces of hard candy, water, hammer? need to smash some candies)

L

1. Do the [chewing experiment](#).
2. *Fill in this [chewing experiment](#) worksheet.
3. Put together the [digestive system jigsaw](#). There is an ad at first. Don't click on it. Watch the count down in the corner to help you wait.

M

1. Watch the [video](#) and take the quiz.

Day 18

L*

1. *Print out [page 12](#). Do you know what you are looking at? Color it in and try and make a key for what color is which part.
2. You can use [this page](#) to check. Note: It calls the large intestines the colon.

M

1. Take the [Skin Quiz](#).
2. *Do the [skin word find](#).

Day 19

L

1. Write or tell the story of a piece of food. What happens to it? (It first is bitten and chewed and mixed with saliva. Then what happens? Then what?)

M*

1. [Muscular System Quiz](#)
2. *What do you know? Fill in the [muscles](#).

Day 20

L

1. Can you do the [muscle quiz](#)?
2. Can you do the [skeleton quiz](#)? Do you remember?

M

1. [Skeletal System Quiz](#) – Learn as you go!
2. Can you [put the skeleton together](#)?

Day 21

L

1. Read the first [three pages](#) about the heart. Stop at the top of the third page where it asks “Why does my heart beat faster...?”
2. Draw a heart on your wall body. You can [go here](#) in order to see what it looks like and [here](#) to see [where it is](#) in your body.
3. Put your hand on your chest. Can you feel your heart beating? Now jump up and down a lot until you are tired out. Now try and feel your heart beating. Can you?

M

1. Watch this [movie on circulation](#).
2. Then take the quiz.

Day 22

L

1. Start reading where you [stopped yesterday](#). Read to the end of 258.
2. Add veins and arteries on the wall body from the heart to the empty arm.
3. To see veins in the body [go here](#). You will be looking at the circulatory system, or how the blood moves around the body. Notice how the veins get smaller as they move away from the heart. Why? Think about highways and then roads off of highways and then roads off of those roads. Why do they get smaller?

M

1. Watch a [movie on circulation](#).
2. Take the [quiz](#).

Day 23

L

1. Find someone to ask you the questions on [page 326](#). Go over the definitions on 325.

M

1. Read this [article on the heart](#).
2. Read through all the pages.
3. Take your pulse resting and then after running around. Compare the two. Record them.

Day 24

L*

1. Watch a [movie about the heart](#).
2. *Complete [page 263](#).
3. Check your answers on [page 327](#).

M*

1. Watch the [video](#).

- You can see the [heart in action](#) (just a drawing).
2. *Print out and [label the heart](#).

Day 25

L*

1. Complete [page 262](#).
2. Check your answers on [page 325 and 327](#).

M

1. Read the section on [Blood](#).
2. Answer the questions at the end of the section.
3. Check your [answers](#).

Day 26

L(*)

M

1. Complete the [crossword puzzle](#).

Day 27

L

1. Read about [arteries and veins](#).
2. Take the [quiz](#).

M

1. Read the [Overview of the Cardiovascular System](#).
2. Answer the questions.
3. Check your [answers](#).

Day 28

L*

1. *Do the [circulatory system word search](#).

M

1. [Quiz time](#).
2. [Test time](#).
3. Make sure you check your answers and go back and look at what you got wrong and learn the right answer.

Day 29 (Materials for L: dime-size piece of clay, toothpick; maybe a few pieces of electrical tape could replace the clay)

L

1. Do the [detecting your pulse](#) activity. If you can't make this, just use your finger to feel for your pulse.
2. Set the timer for 15 seconds. Just type 15 in and click on set. Start counting after you click on Start. Stop counting when you hear the bell. Make sure your sound is turned on.
3. Multiply the number you counted by four. That's your beats per minute.

4. Compare the number you got with the [average for your age](#). (Scroll down.)

M

1. [Quiz time](#).
2. [Quiz again](#). (You aren't supposed to know all the answers. See what you can learn from the quiz.)
3. Make sure you check your answers and go back and look at what you got wrong and learn the right answer.

Day 30

L*

1. Print out the [front](#) and [back](#) muscles.
 - Color in the muscles you use when you are stirring a bowl of thick gooey dough.
 - Color in the muscles you use when you walk up the stairs.
 - Color in the muscles you use when you turn your head side to side.
 - Color in the muscles you use when walk. Walk around and think about every muscle you are using. Are you swinging your arms?

M*

1. The [human body outline](#). Fill in as much as you can. Draw lines and labels.

Respiratory System

Day 31

L

1. Read 258-260 about [lungs](#).
2. Add lungs to your wall body. You can go [here](#) to see where the lungs go.

M

1. Read the chapter on the [respiratory system](#). Answer the review questions.
2. Check your [answers](#).

Day 32 (Materials for L and M: 2 twelve inch (30 cm.) balloons, plastic water bottle — not flimsy, needs some strength, 20 oz. to 1 liter in size I would suggest)

L

1. Read about [inhale](#).
2. Read about your [bronchial tubes](#).
3. Build a model of the lungs. Watch the [video](#). (You can do this together with an M student)
4. Show your model and explain what the different parts represent.

M

1. Watch this quick video on [inspiration](#).
2. Do this [inhalation sequence](#) activity. Read the steps and then play Match.
3. Build a model of the lungs. Watch the [video](#). (You can do this together with an L student.)
4. Demonstrate your model and explain it.

Day 33

L

1. Watch a movie about the [respiratory system](#).
2. Make sure diaphragm and bronchial tubes are on your wall body.

M*

1. Watch the [movie and take the quiz](#).
2. *Label the [lungs](#).

Day 34

L

1. Read the first three pages of this [article](#) on the respiratory system.
2. Label the [respiratory system](#). You'll have to choose it from the list.

M

1. Take the [quiz](#).
2. Learn how [vocal sounds](#) are produced. Interested? Click here for [more](#).

Day 35

L*

1. Do the lungs [wordsearch](#).

M

1. Your choice:
 - Perform [heart surgery](#) with stem cells.
 - Login with easypeasy and allin1homeschool . This login is only for Easy Peasy students doing their assignments.
 - Repair an [artery](#).
 - Login with easypeasy and allin1homeschool . This login is only for Easy Peasy students doing their assignments.
 - Poke a [muscle](#). Watch out for ads on this site. Put on adblock!

Excretory System

Day 36

L

1. Watch this short movie on the [urinary system](#).
2. [Read](#) about it.
3. Take a quiz on the [urinary system](#).

M

1. Read the section on the [Excretory System](#).
2. Answer the review questions.
3. Check your [answers](#).

Day 37*

L*

1. *Complete the [word search](#).
2. Add [the bladder](#) to your wall body. You can connect it with a ureter if you like. Label the parts.

M

1. Complete the [test](#). (The first 2 questions are not labeled. you can either add points for these or you can print the test out and label these diagrams)
2. Can you complete the [crossword puzzle](#)?

Nervous System

Day 38

L

1. Read [pages 234-236](#) about the brain.
2. Read this [definition page](#).
3. Explain to someone what your nervous system controls.

M

1. Read this [article](#). Click through and read all five pages.
2. Then you can watch this [movie](#).

Day 39

L*

1. Read [pages 237-238](#).
2. *Print out [page 239](#) and complete it.
3. [Check your answers](#) when you are done, page 300.

M

1. Today read the chapter on the [nervous system](#).
2. Stop at the review questions and answer them.
3. Check your [answers](#).

Day 40

L*

1. *Print out [pages 240 and 241](#) and complete them.
2. [Check your answers](#) when you are done, page 300.
3. Add your name and date and give your papers to a parent to put in your portfolio.

M*

1. Take the [tour of the brain](#). Click on next and move through the seven parts to “Brain Basics.” Read each page and put your mouse on the red words to highlight areas in the pictures.
2. *Can you fill in the blanks on this [nerve](#) picture? If you need help, see the chapter you read on day 39 or the diagram on this [page](#).

Day 41

L*

1. Read this [definition page](#) on the cerebral cortex.
2. Read this definition page of the [cerebellum](#).
3. *Print out this [brain](#). (You should probably do this in color, but if you print it in black and white, take black marker and draw the boundaries to the various parts.)
4. Label the [brain's parts](#). (Skip pons and medulla...)
5. Cut out the parts of the brain along the divisions and try and put it back together. Let others in your family try.

M*

1. You don't have to read this whole thing, but look carefully at all of the [diagrams of the brain](#).
2. *Here are two brains ([one two](#)) to print out and to [label](#).

Day 42

L*/M*

1. *Make a [brain hat](#). (You can decide if everyone is going to have his or her own hat or if you will share one.)
2. Study your hat.
3. Have someone quiz you where you do different things, like speech, and you try and point to that part on your "brain."

Day 43

L

1. Read "[Why Does My Foot Fall Asleep?](#)"
2. Try this [quiz](#). It's okay if you don't know them all. Maybe you'll learn something new.
3. Explain to someone why limbs fall asleep sometimes.

M

1. Complete the [crossword puzzle](#). You can click on word list at any time to help you figure it out.
2. Take the [quiz](#). If you get something wrong, learn from it. You haven't read the book these questions are from, so it's okay to get something wrong, but learn from your mistake!

Day 44 (Materials for M: 10 matching pairs from a deck of cards or other game; L: read below)

L

1. Add the brain and spinal cord and nerves down the empty leg on your wall body.
2. Choose a craft.
 - [Make a neuron](#)
 - You can use the image in the link above to help you draw it. You don't have to use colored paper.
 - If you really think your child can't free form it (it doesn't have to be perfect), they can color and cut and paste using this [picture](#).)
 - [Spinal cord](#) — egg carton, thimble, needle and thread, short round noodles optional Cut out egg carton sections (probably needs help with this). Have them string it together. You don't have to use noodles. It shows how the spinal cord is connected but can bend in

every direction.

M*

1. Read about [memory](#). Click to turn the page until the article is finished.
2. *Try this [memory experiment](#). Read page 8. Print page 9.

Day 45

L

1. Read this [comic book about the brain](#). Click on “Start the Adventure.”
2. Take the [reaction time test](#). How quick does your brain respond?
3. Here’s a [brain game](#) for the whole family. Can you figure any out?

M

1. Brain games...test your brain...what an amazing thing your brain is!
 - [stoplight](#)
 - [hit the dot](#)
 - [short term memory](#)
 - [face recognition](#)
 - [brain maze](#)
2. Perform [brain surgery](#) if you like. You can just use the animated section, or if you have a strong stomach, there are real pictures. Login with easypeasy and allin1homeschool . This login is only for Easy Peasy students doing their assignments.

Senses

Day 46

L

1. Read about [vision](#) in the first part of this chapter.
2. Add eyes to your body. Label the pupils.
3. Explain to someone what the retina does as well as the eyelids, eyebrows and eyelashes.

M

1. Read about [eyes and vision](#).
2. Answer the questions.
3. Check your [answers](#).
4. Here’s a [video](#) on how the brain works with our eyes to enable us to see.

Day 47

L

1. Learn a little more about eye anatomy, or the structure of the eye. Take a look at this [diagram](#) and read about some of the parts.
 - [Cornea](#)
 - [Iris](#)
 - [Retina](#)
 - [Sclera](#)
 - Now find those parts on the diagram you first looked at.

2. Do the [experiment](#) on page 285. (Move your hand out of your line of sight and then place it down.)
3. Write up an [experiment worksheet](#).

M

1. Learn about [eye anatomy](#). Read about each part and find it on the diagram.
2. If you can stomach it, you can watch a [cow's eye dissection](#).
3. Do this [experiment](#) with a paper towel tube.
4. If you really can't do the experiment, then can you do this one, [peripheral vision](#), or read about this one, [upside down](#).
5. Explain to someone how the experiment worked and what the conclusion, result, of the experiment was.

Day 48

L

1. Finish [reading the chapter](#).
2. *Do the two worksheets at the end.
3. [Check your answers](#). (page 281)

M

1. Scroll down and read "[Other Human Senses](#)" through to the end and answer the questions.
2. Check your [answers](#).

Day 49 (Materials for L: small paper cup, toothpick, 2 feet of string)

L

1. Learn about the [parts of an ear](#).
2. Do the [activity](#) on page 282 and 283.
3. Explain how your ear is like the cup.
4. Add ears to your wall body.

M

1. Design and carry out an experiment using taste and smell to answer the question, Can You Identify Food Only with Taste or Only with Smell?
2. Write up an [experiment worksheet](#).

Day 50

L

1. Watch [The Case of the Barking Dogs](#). This is an hour. Decide as a family if you are going to watch or not.
2. If you don't watch it, you could try this [experiment](#) and try the [quiz](#).

M

1. Learn about [how hearing works](#).
2. Explore the [ear](#).
3. At the dinner table tell what you learned on the subject.

Day 51

L*

1. *Print [page 10](#) (210) and complete it.
2. Read the first part of the chapter through smell. Stop at tasting.
3. Add a nose to your wall body.

M

1. Learn more about [taste](#).
2. Take a [smell quiz](#).

Day 52

L

1. Finish reading [this chapter](#) and print and complete page 11 (211).
2. Do this [taste experiment](#) on page 271.
3. Add a tongue to your wall body.

M

1. Take the [tongue quiz](#).
2. Take the [nose quiz](#).
3. Take the [ear quiz](#).
4. Learn from your mistakes.

Day 53

L

1. Read about [internal senses](#) and stop right before Infrared Vision.
2. Here this video about a [kid who uses echolocation](#). Also, here's a short [article](#) about him if you would like to read it. I was trying to find one I had seen before about a blind boy who could play soccer on a team using this technique.
3. Try walking around the house blindfolded. Listen for sound clues to guide you.

M

1. Take the [senses quiz](#). Click on start. You don't know all the answers. Guess when you have to. It will tell you the correct answer, so you can learn from this quiz!
2. Here are some quick sense experiments to try.
 - [One or two](#)
 - [Saliva](#)
 - [Pencil bump](#)
 - [Flag](#)

Day 54

L*

1. Finish [reading the chapter](#) and fill in the *two worksheets. (pages 9-10 of the pdf, 231-232)
2. When you are done, you can [check your answers](#).

M

1. Complete the [crossword puzzle](#).
2. If you want to try some more experiments, scroll down to the [five senses](#).
3. Whether you do the experiments or not, explain to someone about the experiments you did today and yesterday and what they show about our senses.

Day 55

L

1. Do the [writing assignment](#) on the last page of the chapter. Be creative.
2. Try one of the experiments on the [last two pages of the chapter](#).

M

1. Make a list. List each of the body systems we've learned about and list as many parts as you can in each.
2. Afterwards, take a look through this [tutorial](#) and see what you forgot.

Reproductive System M

Day 56

L

1. Let's go back for a minute. Reread [this chapter](#) and add the liver, pancreas and gallbladder to your wall body. I don't think we did before!

M

1. Read about the [male reproductive system](#) and answer, "What is the main role of the male reproductive system?"
2. Check your [answer](#).

Day 57

L

1. Put all the parts in the [body](#).

M

1. Read about the [female reproductive system](#) and answer the question, "What is the main function of the female reproductive system?"
2. Check your [answer](#).

Cells

Day 58

L*

1. Start reading about [cells](#). Read through page 288. Stop at Organelles.
2. There are lots of big words in there! Write what is the same and what is different about the two types of cells. Write what's the same in the box and what's different on the two sides of the line. *Print out this sheet to use ([prokaryotic eukaryotic](#)).

M

1. Watch this [video of a baby's development](#). You can skip the end once the baby is born.
2. Watch this [video](#) and learn about the development of a baby, of you, from the beginning!

3. [Psalm 139:13-14](#)

Day 59

L

1. Read the whole [chapter](#)!
2. Do this [word jumble](#). All of the words are the big, bold, dark words from your reading. Use the chapter to help you unscramble them. You can print the puzzle or click to “solve online.”

M

1. Watch this lesson on the [endocrine system](#).
2. Identify the [parts of the body](#).

Day 60

L*

1. *Print the last [three pages](#) and complete them.
2. Reread the chapter as needed.
3. Parents can check [answers](#) on page 4. (Answer correction: #4 in multiple choice is B)

M

1. Read the Introduction to [cells](#) and the first half of the chapter on [cell structure](#), up to Organelles.
2. Watch the video on “[The Inner Life of the Cell](#)”.

Day 61

L

1. Read the chapter on [Organelles](#).
2. Have someone ask you the questions on [page 331](#).

M

1. Read the second half of the chapter on [cell structure](#) beginning at organelles and answer the questions.
2. Check your [answers](#).

Day 62

L*

1. Reread the chapter on [Organelles](#).
2. *Print [pages 301-303](#) (pages 10-12 of the pdf).
3. Complete the first two worksheets. Save the color page.

M

1. Read the section on [Transport](#). Answer the questions.
2. Check your [answers](#).

Day 63

L

1. Complete the [coloring page](#). It should already be printed out.
2. Complete this [word jumble](#). They are all bold words found in your [current chapter](#). Use the chapter to help you. You can print this out or click to solve online.

M

1. Read [Cellular Respiration](#). Watch the video. Answer the review questions.
2. Check your [answers](#).

Day 64

L*

1. Read [page 333](#).
2. *Print this [secret code](#). Use the key on page 336 (page 8 of the pdf) to crack the secret code and follow the directions in the code.
3. Read [page 335](#).
4. Act out with people or puppets the roles of DNA, ribosomes and proteins.

M

1. Read [Cell Division](#). The video isn't working. Here's a [replacement](#). Answer the questions. Tonight you might want to make tomorrow's project.
2. Check your [answers](#).

Day 65 (Materials for L: lots of options, see below, you could use a paper plate and random small objects from around the house; Materials for M: light-colored Jello –or some gelatin– grapes, mandarin oranges, plums — or you could use raisins, candy, etc.–3 different things) — Or everyone could just work together on one model...

L

1. Read about [cells](#) and look at the drawing of a cell.
2. Make a model of a cell. Here is some inspiration. [one two three four five](#)
3. You could simply get a plate and put on things like the crayon picture.
4. You don't need the labels. Tell where the membrane, cytoplasm, nucleus, ribosomes, ER and mitochondria are.

M

1. Do the activity on [pages 3-5](#). Make "cells." Then draw one and label it.

Day 66

L*

1. Read [this chapter](#).
2. *Print out pages 315-317 (pages 13-15 of the pdf).
3. Complete page 315 today.
4. When you are done, you can check your [answers](#) on page 382.

M

1. Read about [Mendel and the Foundation of Genetics](#).
2. Answer the review questions.
3. Check your [answers](#).

Day 67

L

1. Read [pages 385 and 386](#) and do the experiment.
2. Fill in an [experiment worksheet](#).

M

1. Watch the video on [Punnett Squares](#). (Note: Don't turn on the CC.)
2. Fill in the [Punnett Square](#).
 - Pick the two parents by clicking on their squares. Check the parents.
 - Drag in the letters that will be their children. They should match the parents letters. If there is a big letter, then the child will have a big letter. Check your answers.
 - Then drag in the pictures of flies into the kid squares that go with the letters. The long, straight down wings are the dominant trait.

Day 68

L

1. Look again at [this chapter](#). Use the information to complete pages 316 and 317.
2. When you are done, you can check your [answers](#) on page 382.

M

1. Read about [genetic advances](#) and answer the questions.
2. Check your [answers](#).

Day 69

L*

1. Read this chapter on [bacteria cells](#).
2. *Print and complete [pages 324-326](#) (pages 8-10 of the pdf).
3. Check your [answers](#) (p. 390) when you are done. Make sure you know the right answers.

M

1. Read about [bacteria](#) and answer the questions.
2. Check your [answers](#).

Day 70

L*

1. *Print [pages 8-9 of this pdf](#). Get a large pan or a serving tray. Gather objects to represent each of the cell parts on the list. For example: ER could be a toy car because it transports things. Mitochondria could be candy because it gives energy. Choose an object for each one and put on a show and tell for your family. Show them each item and tell them what part of the cell it represents and why.

M

1. Read about [Archaea](#) and answer the questions.
2. Check your [answers](#).

Immune System

Day 71

L

1. Read the first three pages of this chapter on the [immune system](#), pages 339-341.
2. *Print out and complete the word search. (You can print the last three pages and hold onto them.)

M

1. Read about [infectious disease](#) and answer the questions. (The video in the chapter is not available, but it is not needed for answering the questions.)
2. Check your [answers](#).

Day 72

L

1. Finish reading the [chapter](#).
2. Complete the matching exercise.
3. [Answers](#) can be checked here. (There is a mistake in the answers. 4 and 6 should be switched.)

M

1. Read about [noninfectious diseases](#) and answer the questions.
2. Check your [answers](#).

Day 73

L

1. Watch the [movie](#) on the immune system. (Note: I was asked to include a note that the video is pro-vaccine.)
2. Complete the compare and contrast worksheet from the [chapter](#). (If you need a reminder about [red blood cells](#), you can look again at chapter 26, particularly page 258, page 5 in the pdf.)
3. [Answers](#) can be checked here.

M

1. Read about your body's [First Two Lines of Defense](#) and answer the questions.
2. Check your [answers](#).

Day 74 (Materials for L: Q-tips, raw meat, beef bouillon, unflavored gelatin, sealable plastic baggies, antibacterial soaps, lotions, etc., it says 4 foil muffin cups—I don't know if that's really necessary — If you can't get these, there is an alternative activity.)

L

1. *Do the [day three activity](#). If you don't have the supplies, do the day two activity.

M

1. Read about the [immune system](#)'s defenses and answer the questions in complete sentences. Give this to your mom to add to your portfolio.
2. Check your [answers](#).

Day 75

L

1. Watch a model of [how a flu cell attacks the body](#).
2. Watch [disease spread](#). Read the directions below.
 1. Do you see the red dots? Look at the key. A red dot is person with the sickness.
 2. Click on Step a few times. What happens? Look at the key.
 3. Click on Run. Does the person get better without infecting anyone else? When the person turns gray, that means he is now immune to that sickness.
 4. Now play with it. Change the settings. Make the population mix (they can travel and take their diseases to new people for instance). Click on Run.
 5. You can also change the other settings.
 6. What observations can you make?

M

1. Watch this video on the [immune system](#).
2. Watch a model of [how a flu cell attacks the body](#).
3. Watch [disease spread](#). Read the directions below.
 1. Do you see the red dots? Look at the key. A red dot is person with the sickness.
 2. Click on Step a few times. What happens? Look at the key.
 3. Click on Run. Does the person get better without infecting anyone else? When the person turns gray, that means he is now immune to that sickness.
 4. Now play with it. Change the settings. Make the population mix (they can travel and take their diseases to new people for instance). Click on Run.
 5. You can also change the other settings.
 6. What observations can you make?

Day 76

L

1. Read again about these words: [Immune System](#), [White Blood Cells](#), [Lymph](#), [Lymph Node](#)
2. Write, draw or act out how your immune system defends your body against a virus.

M

1. Read [Viral Attack](#).
2. Write the immune system members and their order and function in defense as shown in the comic. You might want to save this for your portfolio.

Review/Genetics M

Day 77*

L*

1. Read the review on [page 11](#).
2. Do the writing activity on page 14.
3. *Print [pages 12 and 13](#).
4. Complete the two test pages the best you can and as neatly as you can.
5. When you are done, check your answers on page 15.
6. Give the pages to your mom to add to your portfolio.

M

1. Let's give this one more try. Read this lesson on [Punnett Squares](#).
2. At the bottom of the page click on chromosome kindergarten.

Day 78

L*

1. Here's a little DNA activity. Print [pages 6-12](#). Follow the directions.

M*

1. Here's a genetics activity. Print [pages 5-6](#).
2. Cut six squares from colored paper. Do that again with three other colors. You will have 24 squares. If you don't have color paper, just cut the squares and mark them with different colors. You could use lego bricks or something instead but make sure they are all the same shape and size.
3. Color in all of the circles in each of the grandparents one of the colors. For example, one grandparent might have all red circles and another all blue. Each grandparent should be a different color and only one color.
4. Put grandmother A and grandfather A's colors into a bag or something.
5. Close your eyes and pick out one. Color in one circle on Mother that color.
6. Repeat until all of mother's circles are colored in.
7. Do the same with Father and the B grandparents' colors.
8. Then put all four colors into the bag according to what colors are colored in on Mother and Father. You should have only 12 squares in the bag. If Father has 2 blue and 4 green, then you should have 2 blue and 4 green squares in the bag.
9. Repeat pulling out one color at a time and color in Mary's circles.
10. Then do the same with the other children.
11. How different are the children?
12. Now make a similar chart for your family. Talk with your parents and chart the traits that they each have that their parents had and which of those traits you and your siblings have.

Day 79

L

1. Human body review [book](#).
2. Is there anything else you'd like to add to your wall body?

M

Day 80

L/M*

1. *Play [Body Bingo](#).
 1. Print out pages 2-4 with copies of the board and pieces (pages 2 and 3) for each player. The players need to glue the parts onto their page randomly. The caller uses the 4th page to call out body parts.
 2. IF YOU DON'T WANT TO CUT AND PASTE or IF PAGE 3 ISN'T WORKING, print out page 2 for each person. Read through the body parts that will be used (in random order) and have them write or draw the body parts on their page. Then

you can play bingo.

3. Another suggestion if page 3 isn't working is to download it to your computer and then print it instead of printing from your browser.

Day 81

L

1. Label the [body parts](#). Play all three levels.
2. Answer the [questions](#).

M

1. [Label the body](#).
2. Put the [organs](#) in the right place. Choose female. Use the outline drawing of the organ to figure out how to rotate it.

Day 82*

L

1. Find the [matches](#).
2. Do the [jigsaw of the eye](#). (Under "Select a Picture" choose the green puzzle 'Know your eye')

M*

1. Print these [worksheets](#).
2. Complete the first page.
3. Check [answers](#).

Day 83

L

1. Read about each [body system](#).

M

1. Complete the second worksheet. (You printed it yesterday)
2. Check [answers](#).

Day 84

L

1. Look at pictures of [bacteria under a microscope](#). You can click through lots of pages.
2. What do you think are the most amazing things about the human body?

M

1. Look at these [parts of the human body under the microscope](#).
2. Write about what you think are the most amazing things about the human body?

Day 85

L/M

1. Play a [body systems review game](#).
2. Walk around your house and outside of your home. Make a list of all of the plants you

see and a list of what things you see that you think need plants. You can use this sheet ([plants intro](#)) to record your observations. Hold onto your sheet.

Plants (You are going to need soil and seeds at some point. I have always found beans the easiest to grow. Just buy the beans you eat. They work. They are seeds! I also suggest clear plastic cups for your pots. These are best for observation. You might want to go ahead and start a couple growing.)

Day 86

L

1. Read the introduction to the [Great Plant Escape](#). Click next and read the Case Brief. Click next and click on Plant Structures, the first one. Click on the words that are underlined and read the explanation.
2. Go to the dictionary and click on the little speaker next to the big word, [herbaceous](#).
3. Take a look at some [different types of stems](#).
4. Take your sheet from Day 85. Label each plant you listed as H or W.
5. Are there any more plants around you that you recognize now that you can add to your list?
6. Explain to someone the difference between the two types of plants.

M

1. Read about [Plant Structure](#). Click on the underlined words. (If you are unsure how to say it, go here and listen to [herbaceous](#).)
2. Read pages 235 to 240 of [Real Things in Nature](#).

Day 87

L

1. Read about [plant parts](#). Click next and next...the last one is fruit. STOP after you read about FRUIT.
2. You don't need to know all of those blue words in there. Just understand the basic parts of a plant. I bet you do. Try the next activity.
3. Label the [parts of a flower](#). Click on Labels. Drag the labels to the right boxes. You only need to do the Labels. We'll come back and do the other parts soon.

M

1. Read about [plant parts](#).
2. Click on [structure of a flower](#) when the choice comes. Put the labels in the right places.
3. What [part of the plant](#)?
4. Read pages 240 to 248 of [Real Things in Nature](#).

Day 88

L*

1. Read about [photosynthesis](#).
2. *Complete this worksheet on [photosynthesis](#).
3. Check your answers: (1. carbon dioxide, 2. light, 3. water, 1. oxygen, 2. chlorophyll (or glucose))

M

1. Learn about [photosynthesis](#).
2. Read pages 258 to 259 of [Real Things in Nature](#).
3. Draw a diagram demonstrating photosynthesis. Explain it and how plants and people have a [symbiotic](#) relationship.
4. When you are done, here's a [diagram](#) to compare to. Are you missing anything on yours?

Day 89 (Materials for L: Broad leaf attached to a plant, tape, black construction paper—seems like you could use other colors; Materials for M: two or three potted plant seedlings OR at least two or three small pots of soil each with the same seed planted—you could put two seeds in each pot to give more of a chance, fan?)

L*

1. Today you are going to start a photosynthesis experiment.
2. *Print out an [experiment worksheet](#).
3. Fill in the question. What happens if a plant leaf doesn't get sunlight?
4. Fill in your hypothesis, your guess as to what the answer is.
5. Read the [experiment](#). If you don't want to know what happens, don't scroll all the way down. Just read how to set it up.
6. List your materials and procedure.
7. Set up the experiment. Save your worksheet to finish next week. (If you can't do the experiment, you can look at the picture of the result on the page where you read the experiment instructions.)

M**

1. Read the experiment under [Compare Elements of Growth](#)
2. I think you could just put one plant in each place, you can use more if you like. You could use a closet for a dark room. If you are able to, do the fan part of the experiment too.
3. *Today print out an [experiment worksheet](#).
4. Fill in the question, hypothesis, materials and procedure.
5. Set up your experiment.
6. *Print out this data sheet ([Compare Elements of Growth](#)) to record your observations daily. Don't forget to water every day!

Day 90

L

1. Learn about the [parts of a plant](#).
2. Draw and label a plant.
3. Watch this animation of [photosynthesis](#). Click on The Cycle. Explain what is happening.

M

1. Look [inside a flower](#).
2. Draw and label a plant as detailed as you can.
3. Click on the green box to watch this animation of [photosynthesis](#). Click on The Cycle. Explain what is happening.
4. Click on The Atomic Shuffle and Three Puzzlers.
5. Tell someone what you learned, or ask them the questions and see if they get the answers right.

Day 91

L

1. Read about the [life cycle of the plant](#). You don't need to know all of the blue words. Explain the difference between an annual plant and a perennial plant.
2. Why do people like to plant perennial plants? (answer: They don't have to plant them each year. They grow again on their own.)
3. Plan a garden. What would you plant? Take a piece of paper. That's your garden. Write or draw what you would grow.

M

1. Read about the [life cycle of the plant](#). Click on the blue words to learn more about their definitions.
2. What does it mean when a plant is dormant? (answer: It is resting. It is not growing.)
3. What kind of flower would you choose to plant at your home? Why?
4. Take a look at this [veggie page](#). Plan a garden. What would you plant? When would you plant each thing?

Day 92

L

1. Read the first sections on [Growing Plants Indoor](#). Read "Room to Grow" and "Temperature."
2. Read about plants that live in the [hot desert](#). Click on the arrow to keep turning the pages.
3. Explain to someone what types of plants live in hot weather.

M

1. Read the first sections on [Growing Plants Indoor](#). Read "Room to Grow" and "Temperature."
2. How are plants like people? (answer: They like to be at a comfortable temperature, but they each like different temperatures.)
3. Read about plants that live in the [hot desert](#). Click on the arrow to keep turning the pages.
4. Read about [plants in the tundra](#).
5. Explain to someone about the types of plants that live in the hot and the cold.

Day 93 (Materials for M: shoe box, cup of dirt, bean seed, other pieces of cardboard)

L*

1. Read about [light and water](#).
2. [Grow a plant](#). What happens when you don't use enough light or water?
3. Explain to someone why a plant needs light and water.
4. Take three plants or plant three seeds in three different containers. Put one in the dark (maybe a closet) but water it daily. Put one in the light but never water it. Put one in the light and water it. What happens?
5. *Print out this experiment sheet, ([light and water](#)). Fill in what you think will happen. Save your paper. After a week or so, you can record what happened.

M

1. Read about [light and water](#).

2. Start this [experiment](#) today. You will observe just how much a plant needs light.
3. If you need a [picture of how to make it](#), here's one. (Below is another set of directions and pictures of how to make it, but the last picture shows the result.)
4. Here's a picture of the [result](#) if you can't do it.

Day 94

L

1. Read about [air](#), nutrients and time.
2. What is something that can hurt a plant? (answer: smoke)
3. Read about the [different lengths of time it takes for plants to grow](#).
4. Tell someone three different plants and how long they take to grow.

M

1. Read about [air](#), nutrients and time.
2. It lists three nutrients that plants need. What would give plants those nutrients? Do a little research. Put in the soil of one plant things that would give it those nutrients. Observe it's growth next to one without the homemade fertilizer.
3. Explain to someone what you did and why and what you think will happen.

Day 95

L

1. Today do the [mystery quizzes](#). Do them both.
2. Make sure to make observations on all the plants you have growing.
3. Give someone an update on the plants you have growing.
4. If you haven't yet, take the paper off of your leaf. What has happened?

M

1. Today do the [mystery quizzes](#). Do them both.
2. Make sure to make observations on all the plants you have growing.
3. Give someone an update on the plants you have growing.

Day 96

L/M*

1. Read this page on the [parts of a plant that we eat](#).
2. *Write or draw all the things you can think of that you eat that belong in the [different categories](#). Look around your kitchen or even the grocery store.
3. Here are some [ideas](#) to check/add to your list when you are done.
4. When I lived in Istanbul, I shopped for all of my fruits and vegetables at an open air market. One day a week they closed the road and sellers set up tables on the street. One of the sellers sold roots, just the roots. Celery root, beet root...A famous Russian dish called borsch and it is made from beet root. Try new parts of plants. Maybe you will be surprised.

Day 97 (Choose an activity — different activities require different things, some nothing)

L/M

1. Choose an activity. [Grow lettuce](#) [Other ideas](#)

Day 98

L/M* (You will do this tomorrow too, so print 2 for each child.)

1. *Try some nature study. Follow the directions on this [tree worksheet](#) and fill it out.
2. Here are some tree identification websites, if you don't know what kind of tree you were looking at.
 - [parts of the US](#)
 - [UK site](#)
 - [North America](#)
 - [North America](#)
 - [Asia](#)

M

1. Read about trees in [Real Things in Nature](#), pp. 273

Day 99

L/M*

1. *Like yesterday...follow the directions on this [tree worksheet](#) and fill it out.

M

1. Do this online activity about the [age of trees](#).
2. Explain what you learned and the word dendrochronology.

Day 100

L/M*

1. If you have any experiments still going, make your final observations now.
2. Try and complete a scavenger hunt for the season you are in.
 - [Spring](#)
 - [Summer](#)
 - [Fall](#)
 - [Winter](#)

Day 101

L*

1. Read the beginning of the [case 2](#).
2. Then read the [Case Brief](#).
3. Take a clear plastic cup and fill it with soil (dirt). (It's okay if you don't have a clear cup.)
4. Make observations. Dig through it. What do you see in there?
5. *Fill out this paper with your observations. You will need a ruler. ([soil observations](#))
6. Leave your cup of dirt sitting out in the sun.

M

1. Tell someone what you think you know about soil. What's it made of? What would you find in it?
2. Read the beginning of the [case 2](#).
3. Then read the [Case Brief](#).

4. Take a clear plastic cup and fill it with soil (dirt). Try and dig down a bit to get moist soil. (It's okay if you don't have a clear cup.)
5. Make observations. Dig through it. What do you find? Any surprises?
6. Read page 150 [Real Things In Nature](#).
7. Is there anything new you learned about soil today?

Day 102

L

1. Read about [the makeup of soil](#).
2. Do you observe all of those things? Were any of them a surprise?
3. Measure your soil again. I'm wondering if you can detect the soil being less as the water in it evaporates.
4. Your reading says that soil is made up of living and non-living material. What's another way of saying living and non-living that you learned in the beginning of the year? (answer: biotic and abiotic)
5. What's an example of living material in soil? (answer: leaves)
6. What's an example of non-living material in soil? (answer: rocks)

M

1. Read about [the makeup of soil](#).
2. Do you observe all of those things? Were any of them a surprise?
3. What type of organic matter do you think is found in soil? Make a list.
4. Read [this list](#). Did you include all of these?
5. Read about what [organic matter does for the soil](#).
6. Explain what organic matter is and its purpose in soil.

Day 103

L

1. Read about the [different types of soil](#).
2. Click at the bottom to solve the first mystery.
3. Follow the directions. What does your soil smell like? What color is it? Measure it again and see if there is any difference.
4. Also, take it apart and sort through it as it describes. You can add any observations to your paper if you like. Or, just tell them to your family.

M (Materials: jar, dirt)

1. Learn about [soil](#).
2. Learn about the [types of soils](#).
3. What type of soil do you think you have? Go get some and compare to the lists.
4. While you're out gathering dirt, get some from a few different locations into a jar. Add water. Shake. Let it sit. You can check on this tomorrow. It's the [first activity](#) on this page.

Day 104

L

1. Read this next page on the [nutrients](#) (that's like the vitamins in the food you eat) in soil.

M

1. Learn how [organic matter](#) helps the soil.
2. Tell someone about two of them.
3. Find [organic matter](#) in the soil.

Day 105

L

1. Read all about [soil](#). Keep clicking on next.
2. How does weather affect soil? (answer: Weather helps make soil by causing rocks to crack and break up.)
3. How does soil help plants? (answer: It gives them nutrients to make them healthy.)

M

1. Read about how [different factors](#) effect soil. (Keep clicking on next and read through "Inorganic Material in Soil.")
2. Write a paragraph about soil: its make up, purpose and what affects it.

Day 106

L


1. Learn about the best soil for [growing plants in containers](#).
2. Turn the page and read about composting.
3. Make a compost pile of any size.

M

1. Learn about the best soil for [growing plants in containers](#).
2. Turn the page and read about composting. Make sure you click on all of the underlined words. If you have studied year 4, acid and basic should be familiar.
3. Make a compost pile of any size.
4. Teach someone about your compost. What is in it and why?

Day 107

L*

1. Read more about [soil and composting](#). Stop after you've read the worm page.
2. Go back to the soil observation page and find some soil to observe. Use sticks or popsicle sticks to mark off your area.
3. Here's a page to record your observations ([Soil Squares Observations](#)). Follow the directions on the web page and don't forget to check back on other days.
4. You can make a worm bin if you like 

M*

1. Read more about [soil and composting](#). Stop after you've read the worm page.
2. Go back to the soil observation page and find some soil to observe. Use sticks or popsicle sticks to mark off your area.
3. Here's a page to record your observations ([Soil Squares Observations](#)). Follow the directions on the web page and don't forget to check back on other days.

4. Add worms to your compost if you can.

Day 108

L*

1. Read about [soil substitutes](#).
2. Do the experiment with as many different things that you can. Remember that you can mix them together too.
3. *Here is a sheet to record your observations ([Soil Substitutes Observations](#)). You can make another page for more space and you can add lines at the bottom to write more. The lines at the bottom are for writing what's in each cup. Label your cups! The boxes are for your observations.
4. You'll have to observe over the next week or so.

M*

1. Read about [soil substitutes](#).
2. Do the experiment with as many different things that you can.
3. *Here is a sheet to record your observations ([Soil Substitutes Observations](#)). You'll have to observe over the next week or so.

Day 109

L

1. Play the [senses game](#).
2. Play another [senses game](#).

M

1. Do a super easy [senses activity](#). Keep going to the end.
2. Can you see these [3D optical illusions](#)?

Day 110

L

1. Do another easy [senses activity](#).
2. Check on your soil squares and cups.

M

1. Take the [senses challenge](#).
2. Check on your soil squares and cups.

Day 111

L

1. Read about your [next case](#).
2. Read the case brief.
3. Tell someone everything you think you know about seeds.
4. Do you have any seeds in your house?

M

1. Read about your [next case](#).
2. Read the case brief.

3. Go through each of the ideas and write down what you think you know about that topic. Give some space between topics so you can add what you learn.

Day 112

L

1. Read "[All About Seeds.](#)"
2. How do you think each of those seeds (pictured at the bottom of the page) travel?
3. Watch this lesson on [seeds](#). Make sure you listen to it! It's talking to you. Click on the arrow to turn the page when it is time.
4. What seeds are in your kitchen? If you have a yard, what seeds are in your yard?

M

1. Read "[All About Seeds.](#)"
2. Read about [seed dispersal](#).
3. Read "[How Seeds Are Scattered.](#)"
4. Did you have all of these ways written down on day 111? Add to your list from day 111 what new things you learned about seed dispersal.

Day 113

L*

1. Read about [seed structure](#).
2. Turn the page and read about germination.
3. You don't need to know all of the blue words.
4. *Place a bean (or a few beans) in a zip lock bag (or some tight clear container, even a glass with plastic wrap covering it with a rubber band to hold it on) on top of a soaking wet paper towel (or substitute). Place it in the sun. Every day draw a picture of what it looks like. Label each picture with the day #. Here's a paper to use if you like. Print as many as you need. ([Germination Observations](#))
5. Watch this [video of green bean germination](#). Does it have one or two leaves as it sprouts?

M*

1. Read about [seed structure](#).
2. *(Print page 3.) Start the [experiment](#) (you can use a zip lock bag if you don't have a jar, or tupperware). Read the story and answer the questions.
 - This requires a free sign-up now. Give them a junk email address and download it please.
3. You can give this page to a parent to add to your portfolio.

Day 114

L*

1. Draw the steps of [germination](#). You can just use this as a guide to draw it yourself. You can print just the last page as a canvas. You can print the last two pages and trace the parts onto your germination "canvas." You could cut out the parts and glue them on. You could ask a parent to make a stencil.
2. Make sure to check on your bean and record your observations.

M

1. Read about [germination](#).
2. You can read about and watch [germination](#) here.
3. Go back to your [experiment](#) and follow the directions. Name the parts of the seed.

Day 115

L

1. Make sure to check on your bean and record your observations.
2. Photosynthesis review. Watch the [video](#) and then click on part 2.

M

1. Do this [photosynthesis](#) lesson/quiz. Click on Next Activity when you are done each part.
2. Take a look at this [photo of the power of life](#). The seeds want to live. Have you ever seen a plant breaking through a sidewalk, a wall, a rock?

Day 116

L(*)

1. Do all plants have seeds to make more plants? What do you think? Make a guess then [read this page](#).
2. Now [turn the page](#). Can you figure out which seeds grows into which plant?
3. *Make a mini book about four different seeds and what they turn into. Here is a [lift-the-flap](#) template book. The seed pictures would go on the flap. Write or draw what it turns into on the inside when you lift the flap.
4. Put your mini book or your soil substitute observations in your portfolio.

M*

1. Can you say which way a [seed becomes a plant](#)?
2. Follow the directions on the [next page](#).
3. *Get your soil substitute observation sheet. Fill out an [experiment worksheet](#). "Write see chart for the observations section." Add this worksheet to your portfolio.

Day 117 L*

1. *Do you remember [woody and herbaceous plants](#)? Connect the words to the correct parts of the tree (the woody plant) and the flowers (the herbaceous plant).
2. What parts do both types of plants have?
3. Read the poem at the top of the paper. Why couldn't woody bend?
4. Read pages 18-21 of [The First Book of Plants](#). These pages are about two things that woody and herbaceous plants have in common.
5. Are you remembering to record your daily observations of germination?

M

1. Start a seed collection. Glue? seeds down to a stiff paper or cardboard. Decorate it if you want to make it nice. Label each seed. Can you place them into any categories, edible/inedible for instance?

Day 118

L*

1. *Does it [come from a plant](#)? Fill out the worksheet.

2. When you are done read this (highlight to read): Plants may be used for decoration, erosion prevention and climate control (wind and sun breaks) foods, beverages, flavorings, medicines, fabrics, rope and other fibers, wood, rubber, dyes, paper, and many other products. The original form of aspirin came from willow bark. American Indians would make a tea from the bark for fevers and pain. Even marijuana was originally introduced into this country as a source of hemp for making ropes, cloth and sail. (ends here)

M*

1. Read this page about [plant classification](#).
2. *On this [worksheet](#) write one specific type of plant in each category. You can use the internet to help you.

Day 119 (Materials for L: two leaves, not dried out—they can't be crumbly)

L*

1. Get two leaves. Place one under a piece of thin white paper. Rub with a pencil or crayon over the part of the paper covering the leaf. Do the same with the other leaf.
2. *Print out this paper twice for your leaf rubbings and fill out the other information as well ([Leaf Rubbings](#)). If your leaf is huge, you can rub the back of the paper.

M

1. Let's review again. Make a comic strip that teaches the [process of photosynthesis](#). Here's a [reminder](#).

Day 120

L

1. Go to number 1 under "[Procedure](#)." Read the story and identify the tools as directed. Do you have tools at your house to care for plants? What kinds?
2. Have you met your [goals](#)? Tell someone about each thing on the list. Can you do it?

M

1. Review: Write or tell about each thing in the goals lists.
2. Goals for [case 1](#)
3. Goals for [case 2](#)
4. Goals for [case 3](#)

Day 121

L*

1. Read your [new mission](#).
2. *Print out this [KWL chart](#). Read the Case Brief with the list of goals. Use the goals to fill in the "What I Know" and "What I Want to Know" parts of the chart. Leave the "What I Learned" part empty, for now. You can turn the paper sideways if that makes it easier for you to write in the boxes.

M

1. Read your [new mission](#).
2. *Print out this [KWL chart](#). Read the Case Brief with the list of goals. Use the goals to fill

in the “What I Know” and “What I Want to Know” parts of the chart. What you want to learn is whichever of the goals you don’t already know the answer to. Leave the “What I Learned” part empty, for now. You can turn the paper sideways if that makes it easier for you to write in the boxes.

3. Read [Real Things in Nature](#) pages 261-268. Fill in the “What I Learned” box.

Day 122

L

1. Read about the [parts of a flower](#). Just read this one page.
2. Read [The First Book of Plants](#) pages 23 and 24.
3. Draw a picture of a flower and label it.

M

1. Draw a picture of flower and label it with what you remember from yesterday.
2. Then go back to [Real Things in Nature](#) and see if you got it correct. Fill in what you missed. Try and put on all of the italicized words.

Day 123

L(*)

1. Read [The First Book of Plants](#) pages 25 to 29.
2. Act out with people or props the process of how you get from pollen to fruit. OR
3. *Print out this page ([reproduction cartoon](#)) and draw the process from pollen to fruit.

M*

1. *Print out this page ([reproduction cartoon](#)) and draw the process from pollen to fruit.
2. Write labels/descriptions for each of your pictures. You can draw lines in the middle of the empty boxes to add more boxes if you want them.

Day 124

L

1. Read [The First Book of Plants](#) pages 30-33.
2. Take [the quiz](#) and see what you remember. It’s okay to mistakes if you learn from them! Skip the page with the blank boxes. Click next to move on.

M

1. Read this page about [nonflowering plants](#) and take notes. Write each of the blue words down and what you learned about each word. It doesn’t have to be in complete sentences. When you take notes, you write briefly, but enough so that you remember all of the facts. Read your notes back to someone when you are done.

Day 125

L

1. Fill in the “What You Learned” section of the worksheet from day 121.
2. Did you find the answers to everything you wanted to learn?

M

1. Learn about the [life cycle of a fern](#).

2. Explain it to someone.
3. Take the [little quiz](#). Skip the page with the blank boxes and click next to move on. The last page is identifying fruit.

Day 126 (Materials: flower)

L


1. Find a flower. Draw a picture of it. Write it's name on the page if you know. If you don't, use the internet to try and find out.
2. On the page write, "Number of petals," "Color of petals," "Shape of petals," "Scent" and anything else. What else can you observe, count, record? Do you see any pollen? Make a thorough recording of it. When explorers went to new areas, they drew careful pictures and wrote careful observations to tell people about their new discoveries.
3. Can your flower be used for anything? Use the internet. Is it [poisonous](#)? [Edible](#)?

M

1. Find a flower. Draw a picture of your flower or take a picture of it and put it in a document. Include all of this [information](#) on your page. What other observations can you make? Do you see any pollen?

Day 127

L

1. Try growing something from a cutting. You can use this [page](#) and the next for ideas.
2. [Pollination review](#) You can sing the pollination song 

M

1. Try growing something from a cutting. You can use this [page](#) and the next for ideas.
2. [Pollination review](#)

Day 128

L*

1. Time to [start a new mission](#). Read this page the case brief.
2. *What do you think you know? Fill out the chart. [KWL chart](#)
3. Take a look at pages 44 and 45 of [The First Book of Plants](#).

M*

1. Time to [start a new mission](#). Read this page the case brief.
2. *What do you think you know? Fill out the chart. [KWL chart](#)
3. Read [pages 269 to 271](#) of Real Things in Nature.

Day 129

L

1. Read about [bulbs](#). You don't have to learn the blue words, but click on the word bulb and then draw and label a picture like the one shown. Don't click on the box at the bottom of the page.
2. Tell someone about bulbs.

M

1. Read about [bulbs](#). Draw and label a picture of a bulb and write all of the blue words and their definitions.
2. Don't click on the box at the bottom of the page.

Day 130

L

1. Read "[What is a bulb?](#)" and follow the directions. Add to your list.
2. See if you can see the parts of a bulb in an onion or garlic clove.
3. Finish reading the rest of the case. Keep clicking next.

M

1. Read "[What is a bulb?](#)" and follow the directions.
2. Cut open an onion or garlic clove. These are bulbs. Plants can be grown from these. Do you ever see green leaves coming out of your onions or garlic? What parts of a bulb can you see inside. Show someone.
3. Finish reading the rest of the case. Keep clicking next.

Day 131 (Materials: potato)

L/M

1. Fill out the rest of your KWL chart.
2. Plant [potato](#) parts as described. Watch their growth.
3. If you have access to a sweet potato (our family doesn't), you can grow a sweet potato vine.

Day 132

L

1. Here's the [last case](#). It's not really a case. On the last page you can print out the certificate if you like.
2. Read the [first part of the chapter](#) about vascular plants. Stop at flowering and non-flowering plants.
3. Take a piece of paper and divide it in half. On one side write vascular and on the other side write nonvascular.
4. Draw a picture of a kind of vascular plant on the one side and a nonvascular plant on the other.
5. Show your picture to someone and explain the difference.

M

1. Learn about [how living things are classified](#), organized. Watch the movie and take the quiz.
2. Learn about the [protist kingdom](#). Watch the movie and take the quiz.

Day 133 (Materials for M: zip lock bag or clear glass jar)

L*

1. *Finish reading the chapter and do the [word search](#). (Print pages 8-10)

M*

1. Read about [fungus and mold](#).
2. Watch [mold grow](#). Use zip lock bags or a clear glass jar and add food. Since you aren't supposed to open the jar, how about covering it well with plastic wrap and taping it down around the rim. That way you can see through the top as well.
 - Here are [before](#) and [after](#) pictures to help you decide what foods you might want to try. You can just do one, or you can do several.
3. *Print out this sheet, [Mold Observations](#), and draw pictures of what you think your food will look like on the given days. Use color. Keep the sheet and on the days draw what it actually looks like. If you are against drawing, you can write a description.

Day 134

L


1. Do the chapter matching exercise on pages 136 and 137. (It should be already printed out.)
2. You can [check your answers](#) on page 185.
3. Write a [water drop story](#) as described on page 138.

M

1. Read or listen to the [story of aspirin](#).
2. Read the [history of plants as medicine](#). (Now, I'm combining science and history!)

Day 135 (Materials for L: white carnation or other white flower, if possible)

L*

1. Look at [pages 186 to the end](#).
2. *Print out the [petal sheet](#). It's page 10 of the pdf.
3. Do the two experiments.
4. If you don't have a flower, you can [watch the video of the experiment](#). Even if you have a flower, you might want to watch it. 

M

1. Make a mini book. Use this [list](#) and choose twenty plants. Write their names, their uses and include a picture. Make sure you give your book a title.
2. From this list you are going to choose one to write a report on. Decide today. It should be one that you can find information on about its use today and historically.

Day 136

L

1. Read the [beginning of the chapter](#) until it says Kingdom Protista.
2. What is a kingdom? Watch the [movie](#). It gets really specific with scientific terms at the end, talking about the dolphin. Don't worry about it!

M

1. Choose one plant that has been used as medicine. Learn about the plant, how it's currently used, and how it's been used historically and in other cultures.
2. Take good notes. Write down where you got each bit of information. Write down the

websites. Get as much information as possible. You should use lots of sources.

Day 137

L

1. Finish [reading the chapter](#).
2. How do fungi eat? (answer: Fungi are decomposers. They spread a sticky goo into the area surrounding their body that contains enzymes. These chemicals break down biotic material into smaller, softer parts. The fungi can then absorb this substance. from the textbook)
3. Take a piece of paper and fold it in half. Open it up.
4. On one half write fungi and on the other half write protist.
5. Draw a picture on each side of an example.

M

1. Write a paragraph (in proper form) about the benefits and drawback of the plant as medicine and any conflicting information about how it should or shouldn't be used.

Day 138

L

1. *Print the two [worksheets](#). (Pages 9 and 10 of the pdf)
2. Fill out the worksheets.
3. [Check your answers](#) on page 195.
4. Answer the question on the [last page](#). You don't have to write your answer. You can tell your answer.

M

1. Write a paragraph about the plant as a drug and on plants as drugs in general. Would you recommend the plant you researched? Would you recommend over-the-counter plant-based medicines? Why or why not?

Day 139

L

1. How about some review by movie. See if you remember any of these big words about [cells](#). You can take the quiz after you watch the movie. It's okay if you don't get all the answers right.
2. Here's another one about [cells](#). Watch the movie and take the quiz. It's okay if you don't know all the answers.
3. Make sure you are watching your growing things and making observations. What do you observe today?

M

1. Make your report. Give it a title. Put your data in it. Change the end of your introductory paragraph to be a thesis statement introducing what you are going to talk about.
2. Edit it. You could work on the transition between each paragraph.
3. Create a final page that lists the resources you used. Give that page a title, "Resources."
4. Save! Print. Share.

Day 140

L

1. Another movie review day: Watch the video on [plant growth](#) and take the quiz.
2. Watch the video on [photosynthesis](#) and take the quiz. It's okay if you don't get them all right. This is advanced.

M

1. How about some review by movie. See if you remember any of these big words about [cells](#). You can take the quiz after you watch the movie.
2. Here's another one about [cells](#). Watch the movie and take the quiz.
3. Watch a video on [seed plants](#) and take the quiz.
4. Watch the video on [photosynthesis](#) and take the quiz.

Underwater Plants Day 141

L

1. Let's look at [plants that live in the water](#). Look at the picture on the page. Do you see the green stuff floating on the water? Those are plants. Ever see a picture of a frog on a lily pad? That's a plant. Here are several pages of pictures of water plants. Take as long as you like to look at the pictures and see what kinds of plants grow in water. You'll see they are called "Aquatic Plants." That means "water plants."
 - [page 1](#)
 - [page 2](#)
 - [page 3](#)
2. What types of plants did you see?

M

1. Read about [aquatic plants](#).
2. Read about the different [types of aquatic plants](#).
3. Make an outline. Title it "Aquatic Plants." Write: I. Algae II. Floating Plants, etc. There are 4. Under each category list A. Habitat B. Types. Under A and B use 1. 2. 3., etc. to write one fact on each line.
 - If you haven't learned what an outline looks like yet, here is an [example](#).
4. Use what you know so far to fill in the outline.

Day 142

L

1. Read the "[Brief intro on Sea Plants on Site](#)." It's just the first part.
2. Look at [marine \(sea\) plants](#).
3. The introduction mentioned [food chains](#). Read about what a food chain is.
4. Play the [food chain game](#). You will learn more about food chains in Zoology (year 2).

M

1. Read about [algae](#). Read the intro on the page and then click on the algae link and click on the specific types. List the types and information you learned on your outline.

Day 143

L

1. Read [survival, flowering, and phytoplankton](#). Scroll down. This is pages 2 and 3.
2. What is phytoplankton? (answer: type of algae)
3. Where do the plants that live in the dark get their nutrients since they can't produce their own food using the sun (photosynthesis)? (answer: from dead fish)

M

1. Read about [floating plants](#). Read the intro on the page and then click on the floating plants link and click on the specific types. List the types and information you learned on your outline.

Day 144

L

1. Read pages 4 and 5 about [seaweed](#).
2. Take a look at [brown seaweed](#) and [green seaweed](#).
3. Is there [kelp in your cupboard](#)?

M

1. Read about [submerged plants](#). Read the intro on the page and then click on the submerged plants link and click on the specific types. List the types and information you learned on your outline.

Day 145

L

1. Read page 6 the "[End of Sea Plants](#)."
2. What is happening to destroy sea plant life?
3. What do you think people should do to stop it?
4. What can you do?

M

1. Read about [emergent plants](#). Read the intro on the page and then click on the emergent plants link and click on the specific types. List the types and information you learned on your outline.

Plant Biomes Day 146

L

1. You are going to make a Biome Book. A biome is a big description for a type of environment. Each day you will read about one type of biome and about the plants that live there. Each day you will take one piece of paper. On the top write the name of the biome. Draw a scene of what that biome looks like and what plants live there. (If you are really against drawing, you can write a description of the biome and list what plants live there.)
2. Today do oceans. Read, "[What is an ocean?](#)" and about [plants in the ocean](#).
3. Make the ocean page of your book.

M*

1. *Complete this [biome lapbook](#). Print the lapbook pieces and map, according to the directions. You need to finish on Day 150. You need to read the basic information about

each biome and then about plants in that biome. Write about each biome and give an example of what type of plants live there. Be prepared to share why those plants live where they do. What is special about them that they can survive and thrive in that environment. Here is the [link](#) that is in the lapbook for the information.

Day 147

L

1. Today do arctic. You will read “[What is the arctic?](#)” and about [plants in the arctic](#). The image isn’t working on the page, so here’s a [picture](#) for you.
2. Make the arctic page of your book.

M

1. Work on the lapbook.

Day 148

L

1. Today do deserts. You will read, “[What is a desert?](#)” and about [plants in the desert](#). Here are pictures: [yucca plant](#), [Joshua tree](#).
2. Make the desert page of your book.
3. Desert looks a lot like dessert. How can you remember which is which? Dessert has more Ss because you always want more dessert!

M

1. Work on the lapbook.

Day 149

L

1. Today do forests. You will read, “[What is a forest?](#)” and about [plants in the forest](#).
2. Make the forest page of your book.

M

1. Work on the lapbook.

Day 150

L

1. Today do tropical. You will read about the [rainforest in the tropics](#) and [plants in the tropics](#).
2. Make the tropical page of your book.
3. Present your book. Show it to an audience and explain about the different biomes and plants that live there.

M

1. Finish the lapbook.
2. Present it. Read your lapbook to your audience and tell them why those plants live where they do. How does the environment fit them?

Day 151

L*

1. The scientific method is how scientists approach a problem. They have a problem they want to solve. They learn all they can about it. Then they guess at a solution. That's called the hypothesis. They test their solution to see if it works. That's their experiment. They look at the results of their experiment to see if their hypothesis, guess, was right. If it was, they come up with their conclusion, what they think is true.
2. Watch this video on the [scientific method](#).
3. *Print out this page [on the scientific method](#). Complete the piece on, "What is the Scientific Method?"

M

1. Watch this video on the [scientific method](#). When you get to the military example, if you want, skip ahead to the 20-minute mark.
2. Explain what the scientific method is and what science is.

Day 152

L

1. Complete the "Steps of the Scientific Method" and "What is a hypothesis?" pieces.
2. On the how many steps pieces list these steps: question, learn, hypothesis, experiment, data, conclusion.
 - You start with a question you want answered.
 - Use what you know, learn more and make observations.
 - Then you form a hypothesis, your best guess at the answer to your question.
 - Then you experiment.
 - When you are done, you look at your data, all of the observations and information you gathered during the experiment.
 - You use that information to make your conclusion, your final statement on whether or not you think your hypothesis was right.

M

1. Read about the [scientific method](#) and then take the quiz. (Find the quiz button in the menu at the bottom of the reading.)

Day 153*

L*

1. Complete the [variable pieces](#). Here's a video about [scientific variables](#).

M

1. Read until you get to "[answer questions](#)" for the first time. Make sure you click on the sore feet research investigation. To use it click on sore feet repeatedly to collect data.

Day 154

L

1. Watch this [presentation on the scientific method](#).
2. Listen to the [scientific method song](#). You can read the [lyrics](#) while it plays.

M

1. Finish the [page](#). Make sure you do the required research activities. Stop at required reading. You don't need to do that.

Day 155

L*

1. *Practice. Print out this [Scientific Method Worksheet](#). Order the steps of the scientific method. Then describe what you would do for each step. Your problem is that you can't blow a big bubble. You want to know if there is gum out there that makes it easier to blow a bigger bubble.

M*

1. Watch the presentation on the [scientific method](#).
2. *Print out this [scientific method experiment booklet](#). (Siblings will be using this as well.)
3. Complete the second page; fill in the blanks.

Day 156

L*

1. *Print out this [scientific method experiment booklet](#). You don't need the first two pages. You may not need all of the pages. You can wait and print a little at a time if you need to.
2. Today you are going to start thinking about what experiment you would like to do about plants. Today, try and come up with a question you would like answered.
3. Fill out the question section of the experiment booklet.
4. If you are stuck, here are some [questions](#) to get you thinking. Here are some more [experiment questions](#). Here's another [idea](#).

M

1. Today you are going to decide on a question you would like answered about plants.
2. Fill out the question section of your experiment booklet.
3. If you are stuck, here are some [questions](#) to get you thinking. Here are some more [experiment questions](#).

Day 157

L/M

1. Today you will do the observations and research part of the scientific method. You are looking for information that will help you form your hypothesis. Record your resources and notes in your booklet.

Day 158

L/M

1. If you are ready, write down your hypothesis, what you think you will find to be true after your experiment. Use your scientific method experiment booklet to write down your hypothesis.
2. Decide on how you will do an experiment to check if your hypothesis is right or not.
3. What will your variables be? What will you change? What will stay the same? What will you be looking for? Fill in the variable section of your booklet. The definitions of the different kinds of variables are on the page.

Day 159

L/M

1. List your materials and procedures.
2. Make sure you have the materials.

Day 160

L/M

1. If you are ready, start your experiment. Because plant experiments often need several weeks to observe, I wanted you to get started on it right away.
2. Decide how you are going to record your observations. How often are you going to make observations. Make sure you have a method for carefully recording when you observed and what you saw.

Day 161

L/M(*)

1. Now we are going to start all over!
2. (*) You can print a second copy of the [experiment booklet](#) (starting at page 3), or you can record all of the information yourself on paper or on the computer.
3. You are going to be doing a human body experiment as well.
4. Today, find your question. Here are some places to go for ideas if you need them:
 - [one](#)
 - [two](#)
 - [three](#)
5. Don't forget about making observations on your plant experiment.

Day 162

L/M

1. Today you will do the observations and research part of the scientific method. You are looking for information that will help you form your hypothesis. Record your resources and notes in your booklet.

Day 163

L/M

1. If you are ready, write down your hypothesis, what you think you will find to be true after your experiment. Use your scientific method experiment booklet to write down your hypothesis.
2. Decide on how you will do an experiment to check if your hypothesis is right or not.
3. What will your variables be? What will you change? What will stay the same? What will you be looking for? Fill in the variable section of your booklet. The definitions of the different kinds of variables are on the page.

Day 164 L/M

1. List your materials and procedures.
2. Make sure you have the materials.
3. Don't forget about your plant experiment and observations.

Day 165

L/M

1. If you are ready, start your experiment.
2. Decide how you are going to record your observations. How often are you going to make observations. Make sure you have a method for carefully recording when you observed and what you saw.
3. You have twelve days to collect your data starting today.

Day 166

L/M

1. Collect your data.
2. Start work on this [landscaping project](#).
 - Several of their suggested links aren't working. Use what does work or just do search on your own. The missing links aren't necessary to complete the project.
3. Plan what trees, bushes, flowers, etc. you will plant in your neighborhood.
4. Research what grows in your biome.
5. Make decisions based on your area and what would be easiest and best for your neighborhood.
6. Don't just pick anything. Choose plants for a reason. You'll explain your reasons when you present your landscaping project.

Day 167

L/M

1. Collect your data.
2. Work on your landscaping project.

Day 168

L/M

1. Collect your data.
2. Work on your landscaping project.

Day 169

L/M

1. Collect your data.
2. Work on your landscaping project.
3. Draw a picture of your neighborhood and show where you would plant the things you decided on.

Day 170

L/M

1. Collect your data.
2. Work on your landscaping project.
3. Present your project. Why did you choose the plants you did?
4. Why did you put them where you did?

Day 171*

L/M

1. *Go back to your same [tree](#) and observe it now.
2. Don't forget to make observations.

Day 172

L/M

1. Collect your data.
2. Take the [human body quiz](#).

Day 173

L/M

1. Make observations. Collect data.
2. Label the [respiratory system](#).

Day 174

L

1. Make observations. Collect data.
2. Play the [digestion game](#).

M

1. Make observations. Collect data.
2. Play the [digestion game](#).

Day 175

L

1. Make observations. Collect data.
2. Play the [skeleton game](#).

M

1. Make observations. Collect data.
2. Play the [skeleton game](#).

Day 176

L

1. Make observations. Collect data.
2. Take a [human body quiz](#).

M

1. Make observations. Collect data.
2. Take a [human body quiz](#).
3. Or try something harder and label the parts of a [heart](#).

Day 177

L/M

1. Write up your data in a chart or graph. Make it look great.

2. Make sure it is labeled clearly so that someone can understand it without you explaining it to them.

Day 178

L/M

1. Write your conclusion.
2. Older students should write a paragraph.

Day 179

L/M

1. Make sure everything is neat and orderly. Practice presenting your experiments in front of an audience.

Day 180

L/M

1. Present your experiments. Tell your audience about each experiment. Tell them your hypothesis, your procedure, what your data showed and what your conclusion is.
2. Take a picture of your experiment or you explaining your chart, or your graph or experiment write up if it is on the computer. Or send a video of your presentation. I can add them to the Hall of Fame page.
3. Email them to me at my gmail address, allinonehomeschool. (pictured below)

allinonehomeschool@gmail.com